

Chapter 1- The Senbakoki

It was a dark room. There were no windows, or to be more precise, there were louvers^[1], but without glass, opened. Numerous holes were sticking out from the old wall, from which the sunlight came through. There was a stained stove, but in fact, the whole room was dirty.

Possibly, it's an old house, to the extent that one could hear it almost screaming in various places. The walls were covered with gray spots, which would explain the use of the charcoal. This house does not use gas, but firewood and charcoal to fuel the fire.

Inside the house one could hear the noise of wood being hit, relentlessly reverberating. Someone was making something using a chisel and a wooden hammer. That was bamboo, a nicely cut piece of bamboo, shaved using a chisel and formed into something which resembles a long, thin skewer. The fiber of this unbelievably thin bamboo kept being shaved every time the wooden hammer was used. The piece of bamboo, which drew a perfect circle, changed its figure each time the chisel was inserted in, turning it into a specific object.

The man in charge of the labor was around 170-ish centimeters tall, with a rather tense body. Judging from the look of his arms and shoulders, they've been pretty involved, considering the muscles lightly surfacing on them. He is probably in the midst of his 20s and has short black hair with gray pupils. His masculine expression perfectly suited his face. The man seemed to be wearing cotton made clothes which were not bleached. The sewing traces were rough, probably done using a thick needle. Was it because of the low level of technique, or that man's low income? Anyway, it had to be one of them.

- Eiji-san, it seems to be quite a minor job there, but what are you making?
- I am thinking about the way to reduce your labor, Tanya.
- Mine?

Yup, it looks pretty harsh on you.

In front of the man whose name goes by Eiji stands a girl. Her name is Tanya and she's around her 20s.

Her abundant black hair exceeded her shoulder, and her skin was a little tanned, but still one could notice the white spots standing out. Hers are loose one piece clothes. Tanya's waist area was tightened, and she had a slim waist to the extent that one could feel it could break at any time. In addition, her chest was pretty voluptuous. Her round and big pupils, which are darker than her hair, were what stood out more than anything. Tanya's lips, which are a tiny bit thick, seemed to represent both the dimension of her feelings, and her gentleness. From Eiji's point of view it was clear that she's a real beauty, and perhaps 9 out 10 would share the same thought.

A look so beautiful that one wouldn't forget for the rest of their life, yet one could see the tiredness on her face which doesn't seem to disappear. Her cheeks, even though only slightly, looked hollow and her clothes were cobbled together, both of them giving her a shabby impression.

Despite being such a beauty, it's such a waste, or so thought Eiji. If only she wears neat clothes and eat more properly, that naturally arranged face of hers will surely blossom noticeably.

In Tanya's hands there is wheat grass, tons of golden colored wheat grass put together which are yet to be threshed.

In his right hand, Eiji holds 2 slender pieces of bamboo material between which he intends to put the wheat, in order to uproot them from their husk. The wheat, gathered in bundles of 10, is laid in a corner in a great amount. It usually takes a whole day to thresh about 100 of them. While doing so, one would keep their posture continuously bent for a long time. Even for a man it was an exhausting labor.

- It is an important job for me who was left by my husband.
- I do think so. That's why I want to make a tool that will ease your work.
- Eee!? Eiji-san, are you by any chance an engineer or an inventor?

It's not something to boast about. I feel humbled.

Cultivating fields, hunting animals, such manual labor is what a man would usually do. As for women, it would be wheel knitting, preparing meals, doing laundry, and taking care of the household. But for a girl whose husband died for unknown reason, threshing wheat would be compulsory. If someone were to finish farm work, there would usually be no time for threshing. In that case, letting a girl doing field work alone would be considered fine. The labor division system is known for having a good reputation, but it can also be used to force one's responsibilities onto others. The reason why such inequality is allowed is because of the fact that both child bearing and manual labor are considered of high importance for the sake of keeping a village alive. Whatever the reason may be, a girl that doesn't bear a child would be looked down upon.

Eiji took a glimpse outside the opened window and judged from the position of the sun that it was quite late already. Yet there was still a work to do in the backyard field.

- I still have to increase the number of the teeth, but with the situation right now, I think it's enough for the job to progress. Please use this.
- And this is..?
- It's called a senbago (or senbakoki)[∞]. You put some wheat grass together and pass it into the space between the bamboos' protrusion. To be honest, I wanted to make it using iron, but for now please bear with the bamboo-made one.

What Eiji put forward was a tool called senbakoki. On top of the desk attached to its legs, there were 10s of bamboo stick protrusions standing in a row, like a comb.

- I'm going to explain you how it works, please look.
- Please go ahead.
- Although saying how it works, it's pretty easy. You hold on some wheat grass like this, and hook them between the protrusions.
- Yes.
- And here you go.

Eiji held onto 5 wheat grass and placed them on the comb. As he

began to extract, just like the droplets, the fruit seeds started to fall, and Tanya opened her eyes widely in amazement.

- T-this is...eee?
- Obviously, it won't come off with 1 go, so please repeat it several times. Once I manage to increase the number of teeth, it should be more efficient
- I-incredible! If I can do this much with 1 go, my work will be certainly much easier.
- You're probably already tired from the working. Please take a rest once you finish this.
- Eiji... thank you.

Tanya's facial expression was covered with deep impression, as she bowed down. One could tell that her words of gratitude were spoken with a voice shaken. Her tears flew along her cheeks, without any sound.

 Oh my. Suddenly my tears started to flow. This can't be. I feel myself quite embarrassed.

Eiji didn't hear it in details, but as far as what he knows women are supposedly married at the age of 15.

During the first night of the marriage^[3], which was already late for Tanya, a war had occurred. Her husband, who had set off, never came back. Since then, she continued as a single woman. Her mind and body should be worn down. Primarily, she should have taken another husband, but because of the village's low population, things didn't go smoothly. Perhaps there were different main reasons behind that as well

Eiji couldn't understand what Tanya is thinking. Probably, she was able to make a happy memory, but he wouldn't expect her to shed tears. It doesn't suit such a pretty girl like her. Tanya, who couldn't understand herself, the reason behind her tears, wiped them with the back of her hand in embarrassment.

As her voluptuous and big chest's cleavage stuck out from her chest collar, Eiji quickly averted his eyes. This person sure lets her guard down, which makes him wonder what she thinks of men. While trying to suppress his carnal lust, Eiji moved toward the door.

- I'm going to the backyard for a bit.
- To the field?
- Yeah.

As he opened the door, a dry and cold wind blew through. The valley made of soil, the expanding wheat fields, the charming sunset sky, and the smell of the green earth. As far as one's eyes could reach, there was no sight of construction buildings. This was completely different from the world, remote and far away in which he once lived. The last thing Eiji would remember was a row of multi-layered buildings crowded with people.

So as to stop crying, Tanya went out to the backyard in which there was a small field. Crops like wheat and barley are usually imposed with tax which is collected each time an official visits. Nevertheless, vegetables cultivated in a small field for personal use are free of tax.

This one was probably made with her own effort. However, because her maiden hands lacked in power, the depth of the field wasn't enough, and therefore, it lacked in fertility. As long as the stones aren't removed, the field won't become fertile.

Eiji swung using a wooden hoe covered with a bronze tip.

The introduction of iron in farming tools took place unexpectedly quick. In other words, even though there are iron minerals, people in this period decide to use bronze. In this era, the method of forging steel remains unknown, because of that, the iron quickly becomes rusty, and while being called the evil iron, it is quickly considered of little importance. This is without doubt a prehistoric civilization, or so – thought Eiji.

When one would speak about the perfect opportunity, this would be the right time to do it, or so he thought, while digging up the soil. As Eiji carefully removes the small stones and extracts the weeds, narrow stones and cleaner soil starts to surface.

The weeds are put into a bundle and gathered in a basket. Once the clearing is done, fallen leaves are used to make compost.

The wooden hoe doesn't seem to be able to break through the hard

earth. As Eiji swung each time, a paralyzing stimulus runs through his body, making him sweat.

Eiji had the required engineering skills and the knowledge of forging which he could apply to make farming tools, using iron that are way more efficient than bronze, and then, to make a pickaxe.

The reason why he could use the hoe at the beginning was because of the soil area that was soft. If there's no pickaxe, clearing the hard part of the land is out of question, therefore it won't work. Certainly I'll do it – thought Eiji resolutely, as he finishes the leftover work.

After harvesting the planted beans, Eiji returned to house where Tanya was absent. Perhaps, after she finished threshing, she went out to gather some water, so as to prepare for cooking.

While throwing some firewood into the stove with little fire sparks remaining, Eiji carefully blows the wind through a bamboo pipe. The charcoal, even though there's only few sparks remaining, continues to slowly burn the firewood. The sound started to generate as the surface of wood kept cracking.

- Oh, you've returned. Welcome back.
- I'm back. So you went to gather some water?
- Yes. More importantly, that tool was magnificent.
- Once I finish it, your labor will proceed much faster.

So she remembered – thought Eiji as he smiled back to Tanya who was brimming with excitement. Tanya moves water from the jug to the earthen pot, then sets it on the stove. She puts some beans, an old black pan, and some old bacon into a single pot, while continuing to cook. Finally, having confirmed it's properly cooked, she turns off the stove.

As expected, firewood and charcoal are indispensable materials, as one cannot use them without end. Therefore, gathering dry and small branches is also a part of villagers' daily routine.

Both Eiji and Tanya decided to eat their meal, before the sun sets. This was rather a belated second meal, as their stomachs made sounds. The meal was quite modest, if it weren't for water, their

stomachs wouldn't have been content.

- I wonder if didn't make too little...
- No, thank you for the meal.

However, one cannot say it was luxurious. Everyone was feeling hungry. What's more Tanya, who is leading a widow life, couldn't depend on a man. Because of that, it was much more troublesome for her to prepare a meal.

- Please forgive me, as I wasn't able to make a proper meal.
- It's fine. Letting me to eat, that's alone is enough.
- But...
- Please don't fret, as I'm deeply grateful.

In front of Tanya who was feeling ashamed, Eiji deeply regretted making her become like this. Why am I so powerless – thought Eiji, to the extent that he couldn't express this feeling of annoyance. Clenching his fist, Eiji swore to make the most of his knowledge, so that none of them would have to starve, nor need to restrain themself, and also because of his personal reason.

It's because you rescued me, me who has lost his memories.

Notes

- A louver is a window blind or shutter with horizontal slats that are angled to admit light and air, but to keep out rain, direct sunshine, and noise. The angle of the slats may be adjustable, usually in blinds and windows, or fixed.
- 2. A traditional threshing machine used by the Japanese. For more details: <u>link</u>
- 3. Because some people questioned her chastity, sorry for not specifying this clearly enough. What the author meant was that the war occurred before their first night. And you know it means.
- 4. Meaning that it took place in his world.

Chapter 2 – Who am I?

Inside the house, a rustling sound of something moving could be heard. Once the fire was extinguished, the surrounding became completely dark.

So tired...

His body felt completely exhausted, but the days when Eiji braced himself in activities gave him lots of motivation. Just after finishing his meal and thinking that the day is over, Eiji's body felt as heavy as a ship. In fact, even moving a single finger was a big hassle for him.

Such a situation made him understand that giving his best with the knowledge he possessed will not be an easy task. Usually, some light movements would be enough to wake up ones brain, however, because of the fatigue, his perception became dull, limiting his thoughts to simple activities. If there's a need for some deep thinking, then he will probably have to finish it throughout the morning. While feeling the drowsiness which doesn't seem to fade away, Eiji looked at the wall. From the dark view inside, one could see the outside here and there.

The old walls were bent and lots of holes could be seen. From there, a sky full of stars appeared. The moon was bright, but looking down from the holes, an overwhelming darkness stretched over. Not even a ray of light was to be seen. One could only depend on the light coming from the stars and the moon itself. The neighborhood which was covered in darkness, revealed its silhouette once the stars were interrupted. And yet one could stare at the walls absentmindedly. The ability to see in the darkness is what a human being was capable of.

Eiji used his hand in a searching manner, so as to find the wall holes. However, because the mud walls are granular, if not concentrated, it could be misleading. If there are small holes, then there are big ones as well. Now it's still considerably warm, but once it becomes winter, the holes through which the wind blows will cause lots of problems.

Therefore, Eiji decided to use the clay which he made at noon.

- Eiji?
- Aa, sorry, did I wake you up?
- No, it's fine.
- I'm fixing the walls at the moment, so it will soon be done. please go back to sleep.
- Yes.

Tanya seemed to be weak at night. Once her body was thought to have fallen with a thud, the sound of regular breathing could be heard.

Even though Eiji felt sorry for waking up Tanya, he wouldn't stop his job. His body felt tired, but for some reason, he couldn't sleep despite feeling the drowsiness. Once it gets a little bit later, he will be able to fall asleep naturally. It felt as though his body was accustomed to sleeping in the later hours.

Who am I?

Tanya claimed to have never seen the Senbago, and the orthodox method of threshing was primitive and took a lot of time.

And that's not all.

The field work was harsh. Not being used to doing this kind of work would make one's joints and muscles scream with pain the next day. However, after seeing the villagers cultivating fields, one wouldn't be able to complain about anything.

Furthermore, there was something strange about not feeling content with one's meal. It was not because of the amount, but rather, because one could remember having a more delicious meal.

Then, after seeing the field, you could feel the need of improvement in various areas, popping up naturally in one's mind. Despite not having any memories from doing field work, who am I?

While repeating this question again inside his heart, Eiji washed his hands and lay down on his bedding. In addition to the straw he laid, he put down a woven mat made of straw. Because of the woven mat, the bed felt rather hard, making him unable to fall asleep. I

want a frame bed – thought Eiji.

And the feeling of numbness and warmness slowly wrapped his body. That's right, I wonder if Tanya also had a strange feeling about this way of sleeping. – he thought.

Inside the darkness, human shadows emerged. It seems like Tanya fell into a sound sleep, for not even her breathing could be heard. While smiling bitterly, Eiji finally fell asleep.

A farmer's morning usually comes early. As the sun began to rise, Eiji headed toward the stove in which the firewood had burnt completely, leaving only ashes behind. After putting them into a small vase, Eiji took out a basket and went quickly to the backyard field. Once the plants start photosynthesis, they will use the nutrition they gathered. While digging up beans and potatoes, Eiji puts them into a basket which would be enough for 4 people. In case there's extra, it would be usually used for exchanging with neighboring villagers.

- Oh, so today it's beans and potatoes?
- Good morning.

When Eiji turned toward the sound behind his back, there was a man. The muscular man appears to be in his early thirties, and his name is Mike. He's a hunter in Shion Village[®] with good archery skills, therefore, he often catches lots of deer. In this village, he's considered to be a man whose words carry weight.

- Hey look, I've some rapeseed and cucumbers
- And this is all that I have...
- Nice. You came here 2 weeks ago, didn't you? Maybe Tanya is softhearted, but for me I've not accepted you yet.

—

As Mike raised his thick eyebrows, he stared at Eiji without even hiding his thirst for blood, the thirst for blood of a warrior who has killed numerous wild animals. Eiji felt goosebumps.

For someone to have this sort of attitude toward an outsider would be the right reaction, nevertheless, it was troublesome. What's the matter? – As Eiji was at loss of words, the presence of a girl sneaking behind Mike could be felt. And once that girl clenched her fist...

- You moron!
- Awwie! Aww! Please stop! Honey, I'm sorry!
- Even though Tanya already gave her permission, you just keep saying unnecessary things. Where does a bird-brain like you come from? Do you intend to badmouth him?
- -S-sorry, I'm really sorry, forgive me, aw! That was my fault.

Bang, bang – every time the sound of the fist could be heard, Mike's face bent in pain. From the corners of his eyes tears started to flow, as his head was in a downward position. The silhouette of somebody bowing down towards Eiji could be noticed. However, It wasn't a matter of dignity. The fact that Eiji doesn't hold any grudge toward Mike is because he's used to dealing with troublesome situations like this.

- I apologize for that blockhead. If you could, please forgive us.
- N-no, I don't mind at all.
- **|-|...**
- Didn't I tell you to be silent? Once you open that mouth of yours,
 you cause nothing but problems. Hey, go and prepare the fire.

Once he got kicked hard in back, Mike breaks into a run as if running away. Because preparing a fire is a tough job, in this case, dividing the labor would be considered normal. The girl's name is Jane. While she has a rather big body, her arms would be a match for those of a man's. She has a lively personality and is good at looking after others. On top of that, she's a manager of girls in this village. Jane is a cute girl who has a pleasant smiling face, suitable for her age. Even in times like this, she's gently smiling at Eiji.

- So you are an engineer? It seems like Tanya's labor has become much more pleasant, she's more cheerful too.
- It isn't something to be praised for.
- I wonder where had you been working, before you lost your memory.
- I don't quite get it, but I have a dim feeling like I was creating something.

- You don't have to remember it straight away, just take it easy.
 Whoever you are, I don't really mind.
- Thank you.

For someone like Jane to openly accept a total stranger, she's indeed a person of great magnitude. Eiji felt at ease in his heart thanks to these words.

- So how is your disposition, after having spent here 2 weeks already? If you can move, then after finishing your meal, you may go meet the tribal chief and have a talk.
- Apart from my muscle pain, I feel good. What kind of talk?
- If you plan to stay here, then you ought to find some sort of activity, don't cha think? That's what the talk would concern. Well, but it seems that the residents of your house have no need to worry about that.

fufufu – a smile of profound meaning appeared on Jane's face whose intention was still strange to Eiji.

- To think that a virtuous person like Tanya would shelter a total stranger. So, how far have you both gone?
- How far...you mean?

Jane's face became sternly awesome as Eiji was trying to answer the question.

- Ugh, you mean to say that you haven't laid a finger on her? Even though that girl was sending ok signs with her body?
- I wouldn't dare to I-lay a finger...
- You gotta pay more attention. I'll be waiting till then.

Seeing how puzzled Eiji's face became, Jane smiled cheekily and waved with her hand as if to shoo him away.

 Ok, so now go quickly back. You will recognize the tribe chief's house, because, it's the biggest here. Sorry for taking you so long.

Eiji went back as if being shooed away. Because he was way too confused, he even forgot to spread the ash.

- Welcome back.
- W-welcome back. This will be for our dinner today. Please use it.
- -...? I'll do it right away, so please wait.

After throwing some firewood on the fire in the stove, the pot which was set on top started to warm up. Slowly simmering the wheat gluten, the oatmeal became ready.

- Sorry to make you wait.
- Bon appétit. ^[4] By the way, once I finish this meal, I plan to go to visit the tribe chief. I haven't managed to finish the threshing machine from yesterday yet, but once I come back, I'll complete it.
- Thank you. I am looking forward to it.

Despite being shown a smiling face by Tanya, Eiji couldn't face her directly.

Notes

- 1. I decided to switch to "you" instead of repeating "one", sometimes, for a change. D:
- 2. It was written like this, but I assume it was their shadows
- 3. the name of Eiji's village
- 4. Or itadakimasu.

Chapter 3 – The Recognition as a Villager

The house of the tribal chief was big. The building itself, if compared to the house in which Eiji lives in, was much newer and had no traces of holes or patching.

– Well then, what are you capable of?

What awaited Eiji, who was called to meet the tribal chief, was this sort of question. It was a hoarse voice. On the sun burnt, lightly black skin were numerous freckles and wrinkles. The old woman's name was Bona.

She was short and hump-backed. Although she is said to be in her fifties, her look was frighteningly old. In Eiji's eyes, Bona appeared to be more likely in her seventies.

Perhaps it's due to a diet low in nutrition and harsh working conditions every day that made her appearance looks this old. However, there was something different despite that. Her clear pupils were brimming with wisdom and a strong will. Bona's small posture seemed grandiose. Perhaps it's the proof that inside, she's a person with outstanding skills.

So I'm being tested – thought Eiji, feeling his spine muscles becoming tense, as he was trying to repel the sharp look directed toward him. Because Eiji's origin was still unknown, it was rather worrying for the chief. However, Eiji knew what he was capable of, and what he could do to make a contribution to this village. His self-belief in his skills was more than enough.

- I can make things.
- Like?
- We can make use of facilities such as watermill which uses water force, tools which can easily grind wheat, scythes and hoes, or the item called pickaxe. I can make all of them through the process of

forging.

- That sounds amazing. What do you think Jane?
- It's fine with me. He's been here for two weeks and I haven't notice anything violent in his conduct, so I see no problem. What's more, our village's only triumph card is leather, and that alone won't be profitable in trade.
- I agree. Getting high quality scythes and hoes made would surely make the difference.
- What's more, if Tanya, who hasn't married yet, takes a liking in him, I will be more than happy.
- Heh? That's really favorable. Since that girl lost her husband, she has never welcomed any other man, so she probably feels lonely. Therefore, we have to consider this positively.

The tribal chief, Bona, nodded deeply as she agreed. Guess that would officially mean acknowledging Eiji as a member of the village. Even though he had expected this to happen, he felt somewhat relieved by this outcome.

- Fine. In that case, I order you, who is in charge of blacksmithing, to make farming tools. Since there's a lot going on during the harvest season, you will be exempted from any farm work. Otherwise, you won't be able to focus on your task.

Eiji started to make necessary plans inside his head. As long there are certain tools provided, a blacksmith will be able to make everything. Nevertheless, at the beginning, lots of devices and facilities are needed.

First, a furnace is required. Then items, such as: an anvil, iron hammer, fire tongs, chisel, bellows, whetstones, and a water mill. In addition to the firewood needed to make charcoal, mined ores are important as well.

For the time being, using clay to make a furnace would be fine; however, even if you have the required materials, making tools would take a lot of time. I wonder if using a stone as a substitute to strike the iron would work. – thought Eiji. Having a hammer made of bronze would be fine, still....

- I need to make a furnace and create the forging tools from

scratch, so it will take around three months. In that time I'll get the necessary tools.

- That's quite long…isn't it?
- If that time will allow you to make farming tools, then I could wait, but I don't know if we can afford to feed you for three months without your labor having any fruits to speak of. You know, our village isn't that abundant. So there's really no helping it.

That's some harsh words there. So this is what it means to live a harsh life, I wonder – thought Eiji. But giving up would mean abandoning your work halfway; also, it would lead to a bad reputation.

For a craftsman, making tools is bound with responsibilities. Because of that, just saying a simple yes won't be enough. As Eiji noticed the anxiety in Jane's eyes, he braced himself.

- Once it becomes successful, I'll produce over and over again. Even in farming, when you sow seeds, you cannot hope for a harvest the next day. I would like you to understand that for the labor to bear fruits, it needs time.
- Well, there's some truth in what you say. Ok, I'll tell this to everyone. The wheat and barley is distributed per person, so you don't have to worry, but I'll make sure you become useful.
- It's fine as long as you understand. I don't want to make you give in, as much as possible, so rest assured.
- In exchange, if I you happen to fail, I'll make sure you work really hard.
- Those're some scary words coming out of your mouth.
- Give it your best, I'm counting on you.

Bona's eyes, which were hidden under wrinkles, sparked with light. For the sake of lifting the hunger of many human beings, it didn't matter who produced a better outcome.

Despite feeling goosebumps running down his spine, Eiji nodded resolutely.

- Uff, that tribal chief sure was an amazing woman.
- She's considered a lady of character who's bearing the responsibility of our village on her shoulders. Indeed an amazing person, isn't she? Everyone is willing to listen to her without any complaints.
- -I could understand that alone because of her amazing aura. With that it's decided that I will work as a blacksmith, but just for a while, I think I've got some time.
- Is that so?
- There's a lot to do, however, it all needs time and has to be done in order.

After having an audience with Bona, Eiji went back to Tanya's house. Just remembering the talk made Eiji's stomach feel uneasy. To think that he could say his thoughts so blatantly, even he impressed himself.

Using a bronze knife, Eiji hit the bamboo. Once he cuts into it, he swings it up and down and then nails it. The sound of the knife cutting in could be heard. In comparison to the iron, bamboo is way much lighter, and he could feel it reverberating throughout his body, which was full of muscular pains. *Sigh*, I want to make tools with iron, at least the ones which should be around me – thought Eiji.

Having gathered seventeen pieces of teeth, the only thing remaining would be to insert them through the made holes in senbagoki.

This too, I want to remake someday using iron – he thought. Hence, making this using bamboo would eventually cause it to break. As iron is more resistant and tougher, it means that the labor would become much easier.

- What do you plan to do from now on?
- I would like to find a place where I could get my hands on mineral ores and clay. In addition, I need some wood materials, so if you could me introduce to a lumberjack here.
- There's a person named Phillip, the lumberjack. Because he's traveling a lot between the village and the mountain nearby, he will probably know where to get these materials.
- Tanya, do you have any plans today?
- Most likely, I'm going to do some more threshing using the

senbagoki. Then knit some straw, and prepare the meal. Thanks to you my work became much easier.

I wonder how many times was I thanked – thought Eiji. But since this is a really exhausting job, being useful made him happy.

I should make a winnower, so as to separate the chaff from the grain. Once I've got time, I would like to make it as well – he thought.

Eiji's head was full of inventions he wanted to make, but for this reason he needed more wood, so as to produce more charcoal.

To the east of the village, there's a river flowing in a north-south direction. As Eiji walked along it, he noticed an unpaved path. Because the big stones were removed and there was no sight of grass, it was clear that people use this path regularly. While walking north from the river, slightly elevated hills started to appear. Due to the lumbering techniques and the low population, densely overgrown trees could be seen not far away from the path. It was a forest.

The inside of the forest was dark, making it seem like one couldn't enter easily. While proceeding along the path and climbing the hill, a big barn house could be seen. It was probably a forester lodge. In front of it, there was a bullock cart resting with a bull grazing nearby.

Seeing Eiji's silhouette approaching, the bull didn't seem to be afraid, instead it looked at Eiji with its' rotund eyes. It was chewing grass, while dribbling some drools and mooing.

The closer Eiji approached towards the bull and the lodge, the clearer the sound of a working hatchet could be heard.

- Good morning.
- G-good morning.

The guy, who was lumbering the tree, seemed to be bigger than what Eiji expected. He was around two meters tall. His body was covered with thick muscles, and his exposed arm was as big as a

girl's waist. He had deep red hair, blue eyes, and squarish face. His mouth area was covered with a beard.

- Philip-san, my name is Eiji. Since today, I've been officially recognized as a member of this village. Because my work concerns using lots of woods, I came here to greet you.
- It's Philip, my pleasure.

He didn't seem to be the talkative type, and used few words, making him look like a person with a mental impairment. While feeling the overwhelming power coming from this giant, Eiji could notice that under the clumsiness of this person were traces of kindness.

- Philip-san, I've heard that you travel a lot to the mountain, so maybe you would happen to see clay, iron, bronze and tin? By clay I mean...
- U-understood, I have. The clay is this way, iron ore that way, bronze was on the other side. I found them, because I was once asked to by other villages.

All the directions which he pointed to were inside the deep overgrown forest. Entering it forcefully would probably mean getting lost. As for Eiji, who had no survival skills, reaching the destination without getting lost would be impossible.

 Pardon me, I may be 	interrupting	your job,	but	could	you	guide	me
there, at least once?							

-......

Philip inserted his hatchet into the partially lumbered tree. After seeing Philip nodding without uttering a single word, Eiji felt a sigh of relief.

Chapter 4 – Initiation of Manufacturing

In front of his eyes, a large amount of clay appeared. It took some twenty minutes of walking from the hill to reach the destination. On the spot, which was rather sloped, there were layers of clay exposed. You could tell from its tender texture that it was clay.

Along the way, Eiji used a nata¹¹ to cut down tree branches, so as to leave marks. He cleared the bush carefully, though clumsily, and managed to mark the way. Thanks to this, from now on, there should be no problem in reaching the place for gathering materials.

- Speaking of which, I know this may sound rude, but I'd like to have you provide me with some wood in in the form of a debt, at least at the beginning.
- U- understood.

Cutting down and supplying people with wood, this is what a lumberjack is supposed to do. Naturally, an equivalent value has to be paid in exchange for the service, however, Eiji had nothing he could offer.

For a blacksmith, a great amount of burning materials are needed. You could say that more than half of the production cost would usually consist of burning materials. Yet, before even starting the iron manufacturing, a large quantity of fire would be required to make the heat resistant bricks for a furnace. Thinking that way, indeed a large amount of wood is needed. While considering that fact, Eiji kept working. Digging up the exposing clay, he puts them into a basket.

- It's tenderer than what I thought. Philip-san, can I have you wait a bit?
- Hm, I'll help you.

Comparing to bedrock, clay is much softer. Despite using a bronze shovel, gathering it feels considerably easy.

While not uttering a single word, Philip helped Eiji. Since his body was way bigger than Eiji's, he could do the labor much faster. For him, using a shovel would be the same as using a branch.

Obviously, his duty was to guide. He has no obligation to help whatsoever.

Philip, who didn't particularly mind the humbled Eiji, smiled to him.

Despite not being talkative, inside, he's really a gentle person – or so thought Eiji.

After having spent around thirty minutes, the basket became full of clay. If one were to put it on one's shoulder, it would weigh around ten kilos. Once Eiji did so, a sound of heavy weight could be heard.

It felt painful, as if his collar bone was cracking. If it had been a nylon made rucksack, then it would've put less of a burden on him, as the rucksack is made so that the weight is distributed equally. Instead, he could feel the thin rope eating into his body, as he was barely able to hold the basket.

- Shall we return back to the forest lodge?
- T-the iron mine, it's supposed to be in this vicinity...wouldn't it be better to leave the luggage here and go there?
- I'll leave the decision to you.

Once both materials are gathered, a pack similar to that of a bull cart will be needed. Because paths around here are mostly animal trails, if it's a big cart, it could be troublesome to use one in transportation.

Maybe I should make a wheelbarrow. What's more, there should be a carpenter in this village, so we should try with a two wheeled transportation, instead of four. – thought Eiji. Since the the path below his feet isn't flat, making big wheels is necessary. The more Eiji thought, the more the indispensable tools kept popping up, giving him a headache.

As Eiji exhaled a single breath of exhaustion, he kept following Philip. Because Philip is used to this mountain path, despite its bad condition, he could easily progress. There were lots of bumps and mud; however, not all could be avoided. Despite that, they both had to progress without looking behind.

Philip tried to match Eiji's pace. It would be fine even without that, but for someone as Eiji, it is impossible to catch him up at this rate. Furthermore, while progressing, Philip kept cutting through protruding bushes and branches which seemed dangerous. For a person as silent as him, he's quite considerate in his actions.

- Philip-san, how old are you?
- I think around twenty or so.

Farmers are usually particular about the calendar, as sowing seeds and harvesting greatly depends on seasons. However, for a lumberjack like Philip, it had little importance. I thought he would be older than me, since he's quite dependable – thought Eiji.

- We have arrived.
- So it's here? Certainly, you can see raw iron ores protruding. This
 is my first time seeing them.

Red, rusty lumps of iron ore could be seen scattered all over the place. There's probably around several hundred kilos of them. Even if half of that would turn into waste during the forging process, it'd still be plenty. With this much, it would be possible to make as many farming tools as he wished.

- Do you know the shortest path from here to the village?
- Here... if you go straight like this...

It seems like this location is west-northwest from the village. As for the clay, the place would be located in north-northwest. Once Eiji climbed a little bit higher, he could see the tip of the tribal chief's house.

I see... judging from the eye distance, it would take around fifteen minutes, but because the footing is irregular, perhaps twenty, or thirty some-odd minutes – thought Eiji.

There's a big river flowing, and you can get your hands on both clay and iron ore. Eiji understood that this village is blessed with abundant resources.

- It will soon get dark, so we ought to go back quickly.
- I see, then shall we head back?

Even though Eiji managed to reach this place, he felt disappointed, being unable to take the iron ores back. Therefore, he had to content himself with clay alone. As Philip also had his labor to do, there was no way to entrust him with carrying materials.

It was already a big success for Eiji, considering that he was able to find a good source of materials. The first step would be to make a small furnace and the forging tools.

- What do you plan to make, using this?
- It's a small stove. Although it won't be able to reach the desired high temperature, it can be used to make charcoal.

That was rather a rare question coming from Tanya. I guess it would be natural to think that way when seeing someone carrying a lump of earth inside her house.

Although, there is a method of making charcoal by placing wood directly onto fire without having to remove its rotten parts, for someone who's not a specialist, like Eiji, doing this would cause, in the worst case scenario, a fire hazard. For that reason, there was a need to make a stove to produce charcoal. Even though firewood is used for living in the winter, in villages, using charcoal wasn't known.

The small stove next to Eiji, which he normally used, was a shichirin^[3]. However, its temperature isn't something fixed. Every time the heated parts melt, they have to be reinforced, which is rather inconvenient.

It didn't seem like Eiji will use it in the future, but still, it was proof that making something as fundamental and simple as this wasn't impossible.

Next to the house, Eiji kneads and forms the clay which became softer due to soaking it with water.

- I'll help you.
- In that case, I'll do the foundation. Can I have you pile this clay on top?

 Just leave it to me. I'm used to manual labor, since it's what I do every day.

As Tanya smiled with a grin, she stretched her hands over the clay with no restraint. This is what she does every day, a manual work with no head start.

As they both started to knead enthusiastically, the tips of their fingers became smeared with clay.

- Ahaha. You look quite troubled there Eiji.
- Thank you. It requires more energy than what I've thought.

Once it was finished, both Tanya and Eiji were covered in sweat and mud. While wiping off the sweat, Tanya's neat face became muddy.

So as to create ventilation for the heat, Eiji had to make a round roof, and furnish it with a chimney.

Using a flat stone, Eiji smooths the outward side of the clay while adjusting the shape of the stove.

As the day ends, the beautiful, clear sky turns red.

It will take around three days for the clay to become completely dry. In the meantime, Eiji decides to focus on the wheelbarrow and bricks.

And once he manages to make bricks, the construction of the furnace will start.

When you want to make anything good, tools of exceptional quality are needed.

Eiji understood this fact more than anyone.

Notes

- 1. Japanese edged tool with a wide blade and short handle.
- 2. I think I mentioned before something about people using charcoal, but it was probably a by-product of firewood.
- 3. Japanese charcoal grill. See on Wikipedia

Chapter 5 – The Wheelbarrow and Fernando the Carpenter

Dried lumber, which was made using cut down trees, were lying against each other.

In the north-east corner of the village, a big storehouse was present. One could understand that it was a carpenter's workshop.

On top of the big work station, the processed wood lay. It was supposed to be made into something, as uneven spots were made using a small hatchet.

Once the man in charge of the work stopped, he faced toward Eiji. He was a handsome man with a finely chiseled face.

- Huh, so you are the newly accepted villager?
- Nice to meet you, my name is Eiji.
- Fernando. I'm the so-called carpenter. That person over there is my subordinate, Thomas. As you can see, most of the houses in this village were newly built and repaired by us.
- That's amazing. By the way, with some small effort, wouldn't this building be able to house around eighty people?
- Well, if you include the storage, the barn, and the work station, then this much should do.

There were lots of things included in carpentry work, even though they don't seem so at first, such as a warding fence used against wild animals, or in pasture land, for livestock and fields.

For someone like Fernando, taking charge of everything would be quite a feat.

Seeing how the bronze tools are tidied up, one could understand that they were often used for fixing requests.

Fernando was short and his eyes gave a sharp expression. He seemed to be polite in words, but didn't look like someone who was just gentle – is what Eiji felt.

To complement that, Thomas was a tall person, and his body also gave the impression of being tough.

- Then, what kind of business do you have?
- I'd like to have you build this...
- Hm? This is the first time for me seeing a blueprint like this. Was this drawn by you?
- That's right.
- Huh? I've never seen such a wonderful picture.

The wood-block printing, which Eiji took out, was in fact a detailed blueprint drawn using a piece of coal. Fernando, who fixedly stared at it, gave a sigh of astonishment. That was a rare sight coming from him.

- A one plus two wheeled cart?
- It's not intended for bulls, but for hand pushing.
- Huh? You mean pushing it by yourself? Speaking of which, there are handles attached as well. If used skillfully, transportation of things will become much easier.
- I do plan to give each household 1 of these.
- It Seems like I can use this too.

While Fernando was pondering the fastest way to make this, he murmured – ...and the wheels, if we do it like this...

Once he nodded several times, he raised his head up.

- It's a great idea, looks doable for me.
- Can you make this request?
- Will you agree for a fee of one week's portion of wheat?
- One week's portion…?

Considering there's not much in reserves for daily life, judging from Eiji's standard cost criteria, it was a very high price. On top of that, wheat is the main source food, unlike wild oats, barley, and vegetables.

Fernando smiled mischievously, as he knew that he had overcharged Eiji.

- Can't you make it cheaper?
- L can
- In that case...
- If you make me carpenter tools in exchange, that should do.
- Oh, so this is what you want? Then we shall trade with items.

However, I'll need to have you make me the items I need first.

- Having a blacksmith really saves my day. I cannot even buy a single nail from other neighboring villages.
- First, I'll make you a saw, a plane, and a file.
- A plane…what's that?
- Well, you will know once it's done. You will take a liking to it, surely.

For a while, Fernando became silent. He seemed to be unable to evaluate the unknown items which were yet to be made.

But in the end, he accepted. As he nodded, Fernando reached out his hand.

A firm hand shake, which was quite tough, followed.

It was a hand of a man whose daily work based on holding a hatchet.

- By the way, can I have this woodblock print?
- I don't mind, use it as you wish.
- Just leave the work to me. On the contrary, in case that thing called a plane won't suit my taste, I'll ask for something else, and I won't be moderate in my request.
- That's some scary thing you said there. Fine by me.

Eiji smiled. The invention of saw dates back to the 15th century B.C, however, iron-made ones were not known until the Roman times. Seeing the wood's cross-section, it was not done using a saw, as lots of uneven places could be seen.

There is no doubt that it was shaved and chamfered using a scythe-looking blade, similar to a yariganna¹¹. Certainly, Fernando was content with its sharpness.

Eiji saw a flame. The crimson red burning flame telling him everything he needed to know: the moment the wood turns into charcoal, the temperature at which the bricks gets fired, and the time in which iron oxide has to be tossed in. The white charcoal, which has been burned for three days, is finally burning crimson red. The smoke coming from the chimney was black at first, but now it's turned into a white vapor. The heat-resistant brick was finally made. However, for that, another week passed.

Due to the preparations, every day was tiring. In order to make bricks, you have to search for the right earth. If it's not a white colored earth like diatomite, making a heat-resistant brick won't be possible; instead, the usual brick will melt.

Thanks to Philip, searching for the right earth took around two days. If it hadn't been for him, who knows this mountain like his own pocket, Eiji would've long abandon his hope for making the fire-resistant brick.

But once he Eiji manages to obtain the desired brick, he will be able to make the furnace. And once the furnace is completed, he can start forging. And the village's productivity power will rapidly increase. For the sake of the bright future, Eiji was ready to resist his tiredness.

But more than just for the sake of this village, Eiji was willing to throw himself away in order to become more useful to Tanya.

He still hasn't laid a finger on her. Every time the both of them went to sleep, sometimes the thought about whether or not he was tempted by Tanya crossed Eiji's mind.

Even during meal times, whenever their hands happened to touch each other, Eiji felt like he was driven by the temptation of her alluring and flirting glance. And when the time to go bed came, the whisper saying "good night" could be heard coming from Tanya, which gave his body an additional impact. At such times, Eiji couldn't help but to restrain himself firmly as he went to sleep.

Now, being indebted to many people, Eiji felt quite nervous, as he was not able to make anything yet. Faster, faster – is what he felt, the sensation of something rushing him. If only I could make at least one item..., then... – he thought.

As the sun started to set, the fire in the stove was slowly extinguished.

Notes

1. type of Japanese plane. See on Wikipedia

Chapter 6 – The Commencement of Work

Putting together the heat-resistant bricks, then filling the remaining holes with the crumbles of clay, a strong and solid furnace which can resist high temperatures was made. It was 3.6 meters tall, 40-something centimeters in width, and 80 centimeters long.

The special shape of the furnace was made so that it could use the reflection of the radiant heat to prominently increase its temperature. The chimney was made long and narrow, in order to improve the effectiveness of the heat. It was also manufactured so that whenever it ceased to work, one could use it straight away without waiting.

Finally - thought Eiji.

In the blacksmith's workshop there was tons of firewood piling up, and next to it, in the same amount, iron oxide. This all alone took two months of preparation.

Of course, were it not for the aid coming from the village, such as digging up iron ores, getting firewood, and constructing the furnace and the workshop, Eiji wouldn't be able to make all of this. One could say that it was no ordinary assistance.

As Eiji looked around his workshop, there were still lots of tools missing, such as an anvil, an iron hammer, and clippers. It was clear that from now on, he has to focus on making them.

In exchange, there was a working platform waiting for him, already. If it were a blacksmith's workshop during Japanese ancient times, the working process would be carried out on the very low floor level. However, in present times, workshops became modernized, making the process possible to be done in a standing position.

Tanya, who came to celebrate the completion of the furnace, gave a sigh of admiration. The workshop was wide, which was crucial to maintain the heat-resistance when using fire.

Because of the walls being made using new and profound bricks, the

workshop looked exceptionally beautiful. What's more, the ceiling used to shelter from rain was firmly built. Eiji could understand that Fernando's work was well performed.

- Congratulation for the completion, Eiji-kun.
- Tanya-san.... now I can finally start my work and commit myself to the duty. Please forgive me for having lived in your care for every single day.
- Were you not doing your best for the preparation? Even doing your best for the sake of preparation is a part of one's labor. I believe you were doing your work diligently.
- Tanya-san... thank you.
- Huh? Ain't you trying to show off there?
- Fernando-san....please don't butt in.
- Nope, it seemed like I was ignored, so at least let me talk, hahaha.

As Fernando laughed, both Eiji and Tanya, whose faces became red like a beetroot, realized they had been closed inside their own world. Tanya, who felt particularly embarrassed, covered her face with her hands. You could notice that her ears were flushed red.

Eiji bowed down. He understood that Fernando will not get any reward for building the house.[4]

- Thank you, for the magnificent work you have done here.
- Don't worry. Was it not a request coming from the village? What's more, the labor was really fun, thanks to the help of the other guys. It was a nice experience, considering that we rarely build anything using bricks. I was really excited to see the fruit of the labor.
- It would be different, if it was a request made by a blacksmith from other villages, but since you're one of us, we don't mind at all. Nevertheless, it's getting hot, so it's better to watch it from the distance.^[5]
- Well, then please do as you wish. Later, Mike and Jane will join us as well.
- Even though we are next to you, thanks for your consideration.

As Eiji turned his look toward the entrance, the sight of the couple could be seen. Once their eyes met, both sides exchanged bows.

Mike was holding a basket, full of dried meat and fruits. Once he put it forward to Eiji, you could feel him being discontented. When Eiji took the basket, Jane laughed mischievously.

- Congratulation on your workshop, Eiji.
- Mike-san, Jane-san, thank you very much. I've been causing you nothing but troubles every single day, but now, I would like to return you the favor, so I'm looking forward to working with you.
- My husband said that he wanted to come and celebrate, no matter what.
- Eh? Wasn't you the one who-awwie!
- Sorry for my husband, but please treat him well.
- Grr....
- S-same here.

Eiji, dumbfounded because of the situation, saw off Mike, who was still groaning in displeasure. Finally, the tribal chief came to pay a visit.

Even though the village population was only around around 250-something, quite a lot of people came to welcome Eiji, since it was the first blacksmith's workshop in this area. As the owner of the newly opened workshop, Eiji probably felt some tension rising.

- Oh my, isn't this place nice? Fernando, you sure are something.
- Thank you.
- And Eiji, I'm looking forward to your contribution.
- Yes, please leave it to me.
- Well then, I shall watch you doing your work.
- Tribal chief?
- Is there any problem?
- No, please feel free to watch, since you deserve it after two months of waiting. Then again, if you wait one more month, I'll be able to make the full use of my skills, so that I can satisfy you.

Tanya, the tribal chief, and Fernando watched as Eiji was moving around.

Once the furnace is kindled, it requires time to achieve the desired temperature.

It was the strange sight of many people from the past observing Eiji, who came from the future, lighting the furnace.

As he throws some firewood into the furnace, the sound of the wood crackling is heard, and the fire starts to get bigger. He uses a pair of bellows to deliver more wind.

Once the inside of furnace received enough oxygen, the wood started to shine crimson red. Because of the amount of heat radiation, Eiji's body and face began to produce sweat. The extent of heat was so unbelievable that his sweat vaporized within a blink of an eye.

A long time passed before the furnace heated up. However, the temperature reached an absurd level.

- I apologize for making you wait. Now that preparations are done, allow me to explain. When the temperature of the furnace is ascertained, we throw in some oxidized iron. Then this time, unlike before, we put some charcoal on them.
- That's fast.
- The actions you take are well planned.

Eiji's movements were fast. Once he adds iron oxide inside the furnace through the mouth, he stirs it, and then puts some charcoal in.

- Next, we stop using bellows, and close the mouth using bricks.

Inside the mouth of the furnace, bricks started to pile up. So as to observe the inside, holes need to be made, even if it is just a few. However, it had no effect on the flames inside.

As the furnace began to block up, the temperature dropped. At the same time, the room became dim.

The light shining through from the furnace mouth gently illuminated the workplace. Fernando, who was watching the whole process, bent his neck with a curiosity. Because the people in this village commonly uses a stove to ignite the fire, it would be normal for it to become stronger when blown using the wind, and weaker when blocked up.

- If you block the furnace, won't the fire disappear?
- Yeah, that would be the common knowledge. As you can see, there's already enough of the component called oxygen for this red

iron to continue to shine. If you cut the source of it, which comes from the atmosphere, it would be natural for the flame to disappear. However, this flame uses oxygen coming from iron dioxide, therefore, the flame which you see keeps burning.

It's just as you say...

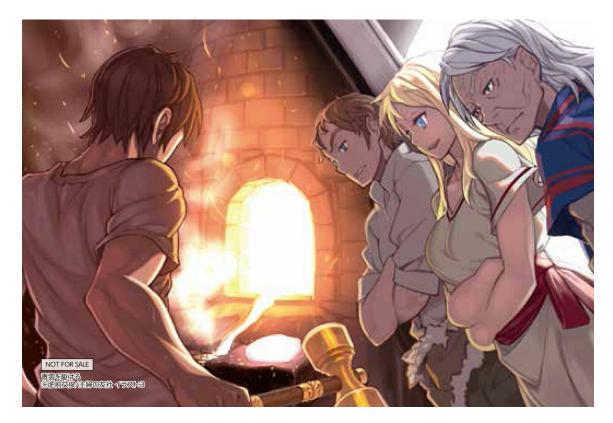
And the light coming from the flame keeps oozing through the holes.

- The temperature of the furnace ranges from around 900 Celsius to 1200-some-odd Celsius. At around 900 Celsius, the oxygen starts to reduce, and by 1200 Celsius, the foreign matter called slag begins to flow out. You can tell how hot it is from the flame. The flame at low temperatures is red. At higher temperatures, it changes color from a bitter orange to yellow, and eventually, becomes white. Well, it should be the right moment soon. We take out the deoxidized iron, together with the slag running off the furnace.
- Around 900 Celsius, what's that?
- It tells you how hot it is.

Eiji moves quickly again. Once the bricks are taken out, he plans to take out the iron using a shovel. First, the sordid foreign matter runs off. A lava like thing slowly fall off into the water which was laid before the furnace, and a large amount of vapor starts to produce, cooling of the slag.

Inside the furnace, the iron kept burning crimson red.

- Woah, it's burning crimson red.
- Won't you get burned?...I'm worried.
- I've got leather gloves, so it should make my work easier, but, if I don't do it fast enough, I'm going to get burned.
- That's some dangerous work there.
- It won't be a big deal as long I move fast. My aim is to make an iron hammer, but for the time being, I'll stay content with the bronze one. The next step is to kick out the remaining slag inside the iron.



As there's no anvil, Eiji places the lump of iron on the big stone, and strikes it. Sparks and the foreign matter called slag begin to scatter around, illuminating Eiji's face.

- The foreign matter will be removed when we finish striking the melted iron. Then we can start forming a shape. Because I'll focus on speed, rather than quality, this time, once the slag is removed, we won't have to go through the folding procedure.

Folding serves as to clog random spots caused by the components.

Due to the irregular distribution of components which creates spots, the iron that was just taken out has an unstable level of hardness.

But because Eiji's intention wasn't to create the iron hammer as the last thing, he omitted this procedure. As the lump of iron cools down, he puts it into the furnace again, and repeats the same procedure of striking it. Then he uses a bronze tip of a spear, as a substitute for a graver, to shape the figure of the iron.

– We increase its hardness by water sprinkling and quenching¹¹. Water sprinkling is, in other words, striking with the hammer after it was submerged into water.

A clear sound of striking metal could be heard. As the iron burned, its surface started to oxidized. Due to the level of hardness being low at these places, there was a need to remove them.

As a result of the water sprinkling, the temperature falls rapidly, causing a vapor explosion, which deals with the oxidized parts.

The oscillation caused by the explosion makes the iron shake, to the extent of making everyone surprised.

– We maintain the balance of the iron components by quenching it till it reaches the max temperature. Then, we may put it into water, oil, or in some cases, honey.

Eiji puts the iron hammer into the bucket, which together with the sound of vapor, starts to burn. Inside, the oil that started to burn, even faster than a flash point.

Just like that, Eiji waited for a minute, and once he confirmed that it has obtained the right temperature, he took out the hammer.

– The lower the temperature of the iron, the harder it becomes. To be honest, I want to cool forged items using ice, but I guess I'll use river water as a substitute. Lastly, once the iron becomes hard, in order to improve the flexibility, you have to perform the tempering procedure.

Martensite'ing is one of the technique used in katanas.

During the tempering procedure, the temperature depends on what you're making. Therefore, high proficiency has to be maintained during this process.

You have to do it skillfully, otherwise sharp-edged tools become blunt, and hammers become chipped.

After Eiji finished the procedure, he removed the remaining slag that melted inside the furnace, and blew in some wind to increase its temperature.

- I keep repeating the same procedure, so it might be boring...
- That was awesome. To think that this much time is needed to make a single item.
- Yes, I was full of admiration. Incredible.
- Yes, with that I can be at peace.
- Actually, it takes a lot more time, as this had many procedures

omitted. I'll be making more tools from now on, so I'd like to you to back me up.

A lump of iron shining dark., once Eiji inserted the handgrip, he could recognize the hammer which he was used to. However, a performance such as this was enough to charm the spectators, who had never seen anything like this before.

I should record this down – the no.1 tool – he thought.

Notes

- 1. Type of heat treating (process) used in metallurgy based on heating and soaking the metal, so as to harden it. See on Wikipedia
- 2. Another process performed after quenching, which aims to eliminate excess of hardness. See on Wikipedia
- 3. Although there's no such process called martensite'ing, the author used the term "martensite", instead. Martensite refers to a very hard form of steel structure obtained through more rigoristic quenching. See on Wikipedia
- 4. At least, not for the time being.
- 5. Again Fernando's speaking.

Chapter 7 – The Ring

Once Eiji managed to get an iron hammer in his possession, production began to progress.

No matter what anyone may say, it's a tool which every blacksmith is obliged to have.

The next tools that are essential for the forging process are as follow: an anvil, fire tongs, graver, file, and shears.

All of them are relatively small tools; therefore it takes less time to forge them. However, in order to make them perfect tools which can give a full satisfaction, another 2 weeks were needed. There were still two weeks left until the promised three months deadlines.

The time spent wasn't short; nevertheless, he managed to get his hands on what he wanted. The most important of them being the tools he will be using. No matter how skillful a blacksmith is, as long as a tool of production doesn't fulfill the right criteria, they won't be able to make anything that would be satisfying. Just like a sportsman's relation to his gear. A good workman doesn't blame his tool, is what one says, but for the sake of producing the best effect, one had to choose the right brush.

In addition to the hammer, there is a metal sheet made of iron which is used to deoxidize iron oxide. There are more than a hundred something different sizes, some weighing even a few hundred kilos.

In this period, in order to make a standard furnace, a far greater amount of time is required. They key factors to shorten that time are preliminary arrangements and being particular about the structure of a furnace. Because of that, one does not have to destroy an old furnace, nor even spend time on repairing.

And the fact that you can make metal sheets, one after another, without having to turn off the fire, is a great advantage. So as for a furnace to melt the iron, lots of time is necessary to heat up the furnace to the right temperature.

This is the story of making a furnace. Eiji was standing inside the workshop.

The state in which a furnace is burning hotly with a fire is also called hodo.

Inside Eiji's head, lots of tools that have to be made popped up. There was Felippe, the lumberjack, to whom he entrusted the job of supplying firewood. Making a hatchet and a saw for someone of so few words, like Felippe, surely would make him happy.

Then there was Fernando, to whom Eiji promised to make carpenter tools such as a saw and a plane.

Even more reason to keep the promise with Fernando, who used all his effort to build this workshop, was because he's making a hand cart to transport the mineral ores.

Besides, there were many other farming tools to be made, such as a spade, hoe, scythe, and plow.

Still...leaving all that aside, there was still one more thing that Eiji wanted to make first.

Something which he wanted to give and someone whom he wanted to receive it.

Inside his heart, a silhouette of a girl surfaced. Tanya.

The widow that lived in Siena village. Despite being a beautiful and young person, one could see hardships hidden inside her shadow.

Her daily work supposedly became harder since she started to live together with Eiji. No matter how well Tanya's job progress thanks to the senbago, in the end, it doesn't contribute to wheat production. Eiji could imagine Tanya bowing down to other villagers, so as to receive some food supply. But there was no doubt; this could be at best the minimum.

Despite that fact, Tanya had no complaint toward Eiji. She probably wants to eat more, and dress up more. A girl's heart is after all, hard to understand.

But, Eiji couldn't keep depending on her grace. Therefore, he wanted to return the favor with all what he had, and see Tanya's smiling face more than anything.

Eiji couldn't imagine how happy he would be to see the girl who lived

under the same roof smiling at him.

- OK! Let's do it!

Eiji, who was full of spirit, took a small piece of metal sheet and put it in the furnace. Then he started to use a pair of bellows.

The pair of bellow was constructed so that it could blow wind by either pushing or pulling.

Because of that, each time he pushed it, he was able to deliver the wind, and there was no problem of the wind stopping once it returned to its normal state.

It was highly convenient thing, as it could help in maintaining the right temperature, while regularly sending the wind.

It was a small metal sheet, so the iron quickly became dyed red.

"Make hay while the sun shines."

A phrase that every blacksmith should know.

As he cuts out the metal sheet using a pair of shears, he puts it on the anvil, and using a graver cuts out a hole in the sheet. Then while inserting the graver, he begins to form the metal sheet into a shape which he will strike.

kin,kin,kin – the rhythmical and repetitive sound of striking the iron could be heard. It felt as though somebody threw a bucket of water on him, as he was constantly sweating, but despite that, he wouldn't stop concentrating on his work. In order to create a well-made product, you have to put your heart into it. In this case, even the slightest movement of fingertips was a matter of life and death.

Once the temperature falls down, it takes time to form the shape. Heating, and then striking the iron while it's crimson red. This is a repetitive, but common procedure in forging. There's no easy way.

After that, he begins to form a shaft from the flat metal sheet. A small, narrow, and thin shaft. That was a ring. Originally, Eiji planned to add a pearl, however, because he has yet to make a pedestal, he couldn't.

He heats the ring in the oil, making it turn dark black. Then once he's done with tempering, he cools it off. Finally, he could hold the end-

product in his hand. Even in this village, ornaments are luxury goods which can be afforded only by people with status.

Making it using silver or gold would be a nice idea- is what Eiji thought. However, now that he has become a blacksmith, that's not something Eiji has to worry about.

What Eiji wanted the most was to give Tanya this iron ring.

Once it became evening, Eiji returned.

He wanted to pass this ring as a token of appreciation for what Tanya had done for him. Nevertheless, this fact alone made him embarrassed.

It would be best to casually meet Tanya, and choose the right moment, but for some reason he couldn't compose himself.

While staring at Tanya, who was standing in front of the stove cooking, Eiji fiddled with the ring inside his pocket.

- What's the matter?
- No, nothing in particular.
- Is that so? But you seem unusually nervous.
- I-is that so? I think this might be because of hunger.
- Oh my. Today we're having fish for dinner, so please look forward to it.

Fish was something that could be eaten only once per week, since there's a limited number of them in the river. In this village it's considered normal to exchange them in turns.

After the plates were placed, one could see a black pan, fried river fish seasoned with herbs, and salted soup made using vegetables grown in autumn. Because fine charcoal was used for the cooking (white charcoal is used for forging purposes), there was no problem in maintaining the heat.

As Eiji began to eat, the refreshing aroma coming from the herbs and the fluffy texture of the fish started to spread in his mouth every time he took a bite of the hot fish.

- Delicious...
- I'm so glad you like it.

The black pan was toasted using fire, and its' surface was crispy, just like a rusk. Inside, it had a soft texture. Taking a good bite, Eiji could feel the taste of the barley on his tongue.

As he kept eating the fish, pan, and vegetable soup, his stomach became gradually content. The gentle warmness started to wrap him up.

While brushing his stomach as if to say it's delicious, you could see a smile appearing on Tanya's face.

- Thank you for the meal. It was the best.
- I'm humbled.

Tanya, who started eating later, also finished her dish. It was the best moment Eiji had, to convey his feelings. As she was trying to tidy up plates, Eiji stood in front of her.

- Eiji?
- I've got something I want to tell you.
- Let's hear it.

While Tanya sat on the chair, Eiji could feel a tension rising from within himself, but no matter what he was going to say, he had to face her.

Yeah, it's ok...- thought Eiji.

Inside, Eiji knew that Tanya could understand him, even if it was a slight change. On top of that, she became his relative and was willing to face him. There was no reason for Eiji to feel insecure in telling his true feelings to her.

- Yesterday, I managed to finish forging the tools.
- So your preparations are complete, huh?
- Tomorrow will be the deadline of the promise, and I'll start making results.
- Is there any problem?
- Perhaps, I'll yield results beyond their expectation. This, I think, will cause big changes to this village, and as well for my status.
- Will...this lead to a good direction?
- I have no idea.

After hearing Eiji's opinion, Tanya's face became gloomy.

One could imagine lots of possible changes, including the bad ones.

- Certainly, I'll become busier from now on, and perhaps there will be lots of hurdles. I have neither any relatives, nor siblings. On top of that I've got no memories of myself.
- But I'm here for you?
- Is it okay for me to believe those words of yours?
- Yes.

Their eyes met. Both of them were serious. There were neither ulterior motives nor lies.

Eiji realized that their feelings were nothing but genuine. He put his right hand into his pocket in search of the ring, and once he found it, he held Tanya's hand. Her hand was white and gorgeous, her fingers were long, and her body was slim.

- What are you..?
- -Tanya-san. When you strike the iron, it becomes more resistant. I want to express and make sure of my love to you. Let both of us make a passionate love, just like the iron burning crimson red.

Eiji slowly inserts the ring onto her ring finger. He could feel his heart exploding at any moment, his ears pulsating due to the flow of blood, and his face burning.

Eiji didn't expect to be dumped. Perhaps one could say he was rather self-conceited; however, Eiji felt that living under the roof for more than two months next to Tanya was something natural.

The origin of the ring dates back to times of magic and sorcery. The ring finger is said to be the closest to one's heart. Therefore it's considered as the symbol which rules a woman's heart.

Without any resistance, the ring was inserted.

- -Eiji-san... I think the ring is a little big.
- -Ahaha, sorry for that.
- But I'm glad. I will treasure it.

Tanya turned around her palm, as to check the ring. From her eyes tears began to flow. Eiji hugged her gently. Once their sight met, their lips overlapped.

- I will love you, no matter what happens, and even If I remember who I am.
- Me too, no matter what may happen nor who you are, I'll love you.

That day, for the first time both of them slept in the same bed.

The next day, when Tanya went to fetch some water and ask for some firewood, her ring could be noticed by others. The rumor spread in the blink of an eye through the village. Other women felt jealous, but at the same time blessed her for being able to find a husband.

Notes

- 1. lit. Fire earth
- 2. Sorry, I mistook once again. The name of village is Siena, not Shion (must have mistaken the katakana XD)
- 3. or: Strike while the iron's hot.

Chapter 8 – The Watermill

Morning, once Eiji wakes up, he sees a pair of plump breasts.

That's right, last night... – once he tried to remember, he immediately stopped.

Seeing that Tanya was still asleep put his heart at ease. Eiji, while careessing her hair, enjoyed its feeling.

Making a comb would be the right thing to do when having some free time- is what Eiji thought. The feeling from her hair was smoothly soft.

While Eiji was enjoying her hair for a moment, signs of something moving could be felt.

Their eyes met. Tanya's big eyes were still sleepy, and seemed to be blaming Eiji's prank for waking her.

- Good morning.
- -....Good morning.

Sensing the bad atmosphere, Eiji slowly pulled back his hand.

Not looking at him, Tanya stood up and put on her clothes.

Without uttering a single word, she drank some water and stood before Eiji.

While her ears were flushed red, she bashfully fiddled with her fingers.

Her look was cute with her upturned eyes...

- -Tanya?
- -Eiji-san...you were quite the pervert there. I didn't imagine myself to gain such an experience.

It was the morning after Eiji, for the first, time thoroughly laid his hand on a woman. Being unable to deny that, he couldn't find a pretext.

- Oh, I just remember that I've got to go pick up some morning vegetables.
- Geez!

Not being able to find a decent apology, Eiji dashed away with lightning speed.

While watering the field in the backyard, Eiji harvested some kale. He also thought about using some mushrooms he had dried in the shade for today's meal.

While being unable to replace the bronze hoe just yet, Eiji used it to expand the field little by little.

Even if one were to continuously expend it for three months, no matter how hard the crust of the earth may be, the field would still be suitable for cultivation.

Eiji made compost using the fallen leaves he gathered in the forest. When he happened to be in the forest, while transporting the exposed iron ore to the village, Eiji had to uncover the road, so that he could mark the route. At the same time, he gathered the fallen leaves.

- Oh, you again?
- Good morning Mike-san.
- So today it's kale? I've got some potatoes.

It was their daily routine to exchange their field products.

- Seriously, every day you are doing something new, ain't you? Removing the stones diligently like an idiot, or ripping out weeds, what do you intend to make, by mixing in that black soil?
- I'm trying to fertilize the soil.
- -... As always, you say some hard-to-understand words.
- In other words, I'm improving the soil, so that vegetables grow better and more often.
- Is that so? Concerning that, wouldn't you make an offering to the earth gods?
- -Ah... well, that's right.
- With that, once the gods are pleased, they'll bless you... speaking of which, recently, the vegetables in your field grow quite well. How

do you do that?

Mike who normally doesn't take an interest in Eiji, showed a rare curiosity.

He stared at the meager amount of the remaining compost. The compost gave the feeling of a dried and scattered material. It had a bright black hue, and an extremely small amount of nutrient vital for all plants.

- I made it using fallen leaves as a basis, but if you have a surplus of straws, you can use that as well. Apart from that, you need fish or another animal's bones, such as a pig's or bull's, which you crush and mix together. After that, you put the mixture into a gunny sack together with some water, and place it under the shadow of a tree in a windy place.
- I see, I see.
- In the middle of the process, you should turn it upside-down from time to time, and while stirring the content, it will become thinner and dryer. Once the dampness is gone, it will turn into a black-like soil.

Mike, who was listening Eiji's explanation, gave a sign of admiration. However, even if they may not know the principles of the process, as long as such person is told the manner of doing it, it's enough. And while it contributes to the soil improvement, it will make living more abundant.

- You're saying things which are hard to understand for someone like me, however you seem to be quite smart. In exchange for telling me something nice, once I get a boar or a deer, I'll share the best part of them with you.
- If it's fine by you, please tell other people about this method. I'm sure they will listen to someone as trustworthy as you, rather than me.
- Is that so? Well, then leave it to me!

Eiji handed to the good-humored Mike some samples of the compost.

Even if it fails, at most, it will only give off a bad smell, but probably that would be fine.

In order to make his and Tanya's life more pleasurable, he had to

help with improving this village's life as well.

Eiji could make tools; nevertheless, all he could do was to guide the food production.

What's more, Eiji didn't like to depend on only his own ability.

No matter how you would try, there's not enough time to improve everything within your reach.

A blacksmith's workplace is usually quite when not active.

There was no sound of an iron hammer, no sound of the wind generated by a pair of bellow, nor the sound of flame.

Eiji, using a thinly shaved and pointed charcoal, drew a picture on the print block. His fingers became more precise than before. A finely drawn picture was easy to understand.

That was a watermill.

The watermill has a rather old history. It is said to be invented back in first century B.C.

It seems like the first model of such was made sidelong, and the material used to build it was stone mortar.

It also had a strong connection to blacksmithing. The orthodox methods of iron manufacturing were later replaced by the blast furnaces which were capable of mass production, and that was thanks to the advancement of wind transferring techniques with the use of powerful watermills.

Despite that, for Eiji, who is striking the iron alone, this much of a production force isn't needed. Rather than that, he thought about using a water mill for a power hammer and and automatic grinding machine.

In blacksmithing, aizuchi¹¹ are indispensable people.

Performing small adjustment, deciding on a shape, and striking and reinforcing weak spots are the task done by sente otozuchi. On the other hand, powerful stretching of iron, melting varieties of iron and attaching them is the job of the aizuchi's and nakazuchi, oozuchi.

Eiji's surrounding mostly consisted of small objects, nevertheless, once he gets a power hammer, he will be able to operate, like with a long Nata.

The automatic grinding machine is based on the same conception; however, just making a blade edged tool won't be enough. Similarly, the whetstone is important as well. There are different types of them, among which are: ara-to, naka-to, shiage-to. [2]

Whetstones such as ara-to, binsui-type, kaisei-type, nagura-type, hosonagura-type, uchigumori-type, are used for sharpening katanas. Furthermore, there are ones used for increasing aesthetic of the blades, in a procedure called tsuya^[3]

Especially the first stage of using arato-seki, depending on the degree of hitting, it is an unrealistically hard labor.

Originally, this process should be performed while applying labor division system.

Eiji's body, during this short period, received a great impact.

Due to the work which requires constant changes of temperature every day, he lost weight and his cheeks became thinner. His right hand became thicker, but, he could still feel the dull pain, running from his neck to his hand. Especially, his hand's wrist was in pain, plagued with tendinitis. Both of his elbows got burned due to the sparks which kept scattering during the forging process.

Even if it was only able to ease one's burden just a little bit, a water mill was indispensable.

– Well, even though I said "let's make it", I still do not know how helpful the watermill will turn out. I just dare to have new ideas continually pop out one after another, still, I believe that you were quite a skilled engineer back then.

– Is that so?

The only thing Eiji could do was answer casually to Fernando who was dumbfounded.

– I heard that you have lost your memories, it wouldn't be quite surprising if you were born on the other side of the sea. It's said that every development takes place there. Even the building construction techniques in this village were received from the other side of the sea. We were digging hole to that extent^[4]

-.....

- My bad, my bad. I suddenly remembered things, but guess this would be the proof of that. What's more, I'm sorry, but I know nothing about the other side, apart from stories.
- Is that so?
- Isn't this place near mountains? Even if you go outside, it won't amount to much. It's not that far.
- Still, I have work to do.
- Speaking of which, what do I get in exchange?
- It seems that the transport using a handcart through that route from the village is quite popular, and rumor has it that girls here are used to transporting heavy items. How much of the construction materials would you be able to make?

Their eyes met, as both their faces were brimming with sarcastic smiles.

Fernando didn't make a single movement. He was probably confirming himself to be in a far superior position. He could understand that Eiji's production deadline was close. In the end, it was Eiji who yielded.

- How about nails (fastener)?[®]
- What do you intend to do with them?
- Eh, isn't that fine. However many they are, it won't cause any problem. I'll entrust you with the making of around two hundred something of them, together with the watermill.
- I'll do that fast. Once the two hundred something of nails are made, I expect that next time it will be you who makes the items I require first.
- Well, even if that tribe chief was told to wait three months for the nails, I don't think it would convince her. Well, let's strike a deal.

For the time being, I'll prioritize making you that saw – is what Eiji promised.

Notes

1. Aizuchi is a term commonly used to describe polite noises in a conversation, to indicate one's understanding, like "yeah" or "Uh"; however, it didn't match in this context. Less commonly, it can be used for people, meaning, blacksmith's assistant. There are generally 3 types of them, i.e otozuchi (junior asistant), nakazuchi(middle asistant), and otozuchi (senior asistant), all of whom do tasks which range in difficulty. Sente is just another name for aizuchi. I managed to find a photo, though it's small:



- 2. Ara-to, Naka-to, and Shiage-to are 3 categories of Japanese whetstone, formally recognized, which varies in number of grits (in other words, each is used for a specific purpose). Why formally? Because, besides them, there seem to be hundreds of other whetstones known only to local people, just like the ones the author has given.(I almost dropped dead trying to make more research on that). For more info: link
- 3. When I tried to find something about it, the only mention could be found here: link
- 4. Probably, meaning that they were doing nothing but following others.
- 5. Ok, this might be little bit confusing. Hinting and implying is a part of Japanese culture, and not only that, but also their language. It's assumed that the speaker should understand one's intention through small gestures and expressions. In this case Eiji's yielding is the same as "ok, I'll do you the favor later, but for now can you make me fasteners?". But many of you might think "dafug, how did it switch the topic".

Chapter 9 – The Debut and the Hatchet

Until the watermill is completed, Eiji had to make the hatchet using his own power. Nevertheless, Eiji knew that, from now on, he had to put more spirit into his work, as he would be in charge of iron forging on a greater scale than before.

The temperature of the furnace was higher than usual. Once Eiji put some iron ore into the furnace, he waited until the heat would transfer into it, making it reach the right temperature.

What he needed wasn't a great amount of pre-made steel, but soft iron.

The difference between steel, pig iron, and soft iron was the amount of carbon element inside of them. The steel would contain 2% carbon, and once it's increased, it becomes pig iron. On the other hand, if you decrease that number, it becomes soft iron. Compared to the steel, it's much easier to adjust the amount of carbon in soft iron, therefore creating soft iron is no difficulty.

The reason behind deliberately making soft iron, rather than steel, was to make the hatchet last longer. The steel is hard and has a great sharpness; however, as a solid item, it's longevity is short. If one were to produce such a hatchet, it would easily become scratched and chipped. The soft iron has a dull sharpness, but it's rather tenacious

In order to create something that has contradictory features, such as: not breaking, not twisting, and is sharp, One would have to fuse both the steel and the soft iron.

- Oh, it melted.

As Eiji was staring at the furnace, he muttered without realizing it. The temperature of the furnace just now exceeded 1200°C.

The metal sheet inside the furnace was dyed red, and Eiji understood that just by seeing, as he didn't have a thermometer. It was a conduct that he was used to thanks to tens and hundreds of

repetitions.

Eiji struck the soft iron as much as possible, forming a figure. He had to carefully make the joint part to which the handle was attached; otherwise, even the slightest shift in its figure could make a big difference for its user. It was a series of consecutive detailed works. He couldn't feel relieved even for a second.

-...Ok.

Eiji said without thinking ahead. Perhaps, it was due to him being too concentrated. The tool was ready, the only thing remaining for it was to be tested. As the final day of the deadline was approaching, Eiji felt more stress building up.

Iron is harder than bronze, there was no doubt it is superior. However, the village people might think otherwise, being convinced of bronze being better.

Perhaps it was due to them using the raw version of the iron, without knowing its refining process, which made the iron becomes rusty, and eventually led to it being called "evil iron".

In order to break this concept, Eiji had to yield a result completely opposite to it. It was a big hurdle.

In contrast, if this gets accepted, it will result in great collateral. And perhaps, even in monopolizing the tools production of this island.

Eiji puts more spirit, as he heats the steel. While he is bending the steel which he has struck and stretched, he smears it with some straw ashes, and strikes hard. The steel melt together, becoming a lump once again.

Folding is the method used in strengthening the metal. By folding numerous times, you can create multiple layers of iron, and therefore, make beautiful patterns on the blade's surface which are commonly seen on katanas and damascus edged tools.

Striking and stretching the iron, and again turning it into a lump is not an easy task. Eiji has to breathe life into the lump of metal, in order to create tools capable of saving human beings. That's what a blacksmith is obliged to do.

Forming the shape of the steel. Then next attaching an ingot to it, which is lightly stretching and folding the steel, and while doing so, inserting the ingot. Finally covering it with straw ash and mud, and burning it.

It is a technique that is called koubu.

It's also known by other names, such as Yomodzume and Honsanmai. It is used in blade-edged tools that, just like katanas, receive additional impacts from every angle. The more the chipped parts are created, the harder it is to perform.

As the work progresses, it will create various splits and broken pieces, as a consequence of quenching. The difficulty is highly dependent on the need to maintain a balanced temperature. Eiji looked inside the furnace, as if starting at something. He was checking the color of the scorching iron inside the dazzling flames.

Now! – thought Eiji.

Once he made sure the red-scorching iron was soft, he took it out. Then he proceeded to striking the lump of crimson red iron. Eiji, being free from any obstructive thoughts, kept striking until he finally made a blade. Once he confirmed the joining was successful, Eiji carried it through further heating and tempering.

– I made it…I made it!

He was out of breath. Eiji put everything he had into this tool, as it needed to be folded 7 times, which was a quite uncomfortable number. Once he polishes it, a beautiful pattern will appear.

Single edge lumberjack hatchet style.

The black imprinted ingot showed the presence of being dependable.

It was an open area inside the village. There was a broad-leaved tree growing in this place; however, its' leaves were now falling.

Around, there was yellow soil spreading with no weeds growing. Even if one were to tread on it, there would probably be no buds sticking out.

In front of it was the house of the tribal chief. People gathered around it, as if surrounding a tree.

In addition to the tribal chief and Eiji, there were other people, like Mike, Philip, Fernando, Jane, and Tanya. All of them were the people who associated with Eiji the most. The tribal chief stood in front of everyone. She had lots of wrinkles and her hair was white, but contrary to her appearance, Bona's posture and gaze was powerful.

- Well then. Shall we begin? Eiji, I hope your preparations have been progressing well.
- Yes. This is the hatchet I made using the iron. And next to it is the one he normally uses.

Eiji's hatchet was next to Philip's one.

Both of them were different in outward appearance. Philip's hatchet which was made out of bronze was straight, while Eiji's one was curved, and had a design placed all along the sharpened edge. Philip, while trying to shoulder the hatchet made of iron, adjusted it.

- So, is it easy or hard to operate?
- It's good.
- Then, the only thing remaining is to check its sharpness. I'm looking forward to that.

Fernando, who had already witnessed the convenience and sharpness of the iron nails, was smiling pleasantly. Contrary to that, there was a person with a pale face, filled with tension. That was Tanya.

Faith and worry are two different things. While lightly holding onto Eiji's clothes, her eyes were shaken with anxiety. Don't worry – said Eiji, once he placed his hand on her shoulder, and gave her more confidence which seemed like purifying her face.

- So Philip, can I have you swing a dozen of times with your hatchet,

using your usual power?

- Here I go. One, two...

First, he swung using bronze-made hatchet. You could hear the high sound of the hatchet cutting through the tree's skin. One could feel Philip's spirit passing through the blade's edge, to which he was very accustomed. So as to make it fair, it was sharpened, specially for this occasion. It was quite sharp.

- I see. The bronze hatchet cuts well by itself, still...
- With this, doesn't it seem like there's no need for the iron-made one?
- Now, now, Shouldn't we judge once we see the iron hatchet in action?

Because of what Bona and Mike said, Eiji felt a little bit anxious.

There's no telling whether a good product will be sold, and same goes here.

Despite it having superior features, there were lots of merchandise lost to oblivion, just like the number of stars on the heaven.

Because of that, Eiji's future depended on how Philip's evaluation went.

Philip-san, I'm counting on you...

And the iron hatchet was swung.

kon, kon – together with clear sound of hitting the wood, the blade of the hatchet sucked into the tree, sending the splinters in all direction.

Five, dozens of times... there's no doubt that it will cut the tree.

But the question is how big the difference will be? However, for someone like Philip, who made his living, lumbering trees, it was more than enough to understand.

– Incredible...Eiji, incredible!

Philip, who was usually calm and silent, gave out from himself a voice full of excitement.

He was staring fixedly at the hatchet with a great interest.

His excitement was that of a child who was given a unique toy.

- Wow, this is the first time for me seeing Philip this excited.
- My husband is saying some rare things there. I agree with him.

- And me too, we wouldn't have known, had we not heard from someone with the first-hand experience. I think this would be enough proof for it to be superior.
- That's right... Philip, there's no mistake in what you said?
- T-he best. The response coming from this was light, and I don't feel tired at all.

Let me see – said Fernando while holding on the hatchet. As he swung it down, he opened his eyes widely.

- -W-what? That's true. The response coming from this is totally different, and the hatchet is moving smoothly, as if sucking towards the tree.
- Hey, let me do it!
- Well then, Eiji.
- Yes?
- From now on, I acknowledge your skills, and that you're one of us. You shall be given the status of executive. (I'm not sure if you can use in this context, but more or less just like this)

Yay! – A shout of joy and congratulations were heard coming from everyone. Tanya hugged Eiji.

– Eiji-san…! congrat…congratulations!!

Being cheered, Eiji's face became red in confusion. While doing some troublesome movements, he looked at the tribal chief. It didn't seem like a joke.

- Everyone present here have the status of executive; therefore, all of us will acknowledge you. I've heard from Mike than you're quite knowledgeable regarding field work.
- But..I've only known you for three months. What's more, even my identity remains unclear. Is it fine to appoint such person as the executive..?

Primarily, a village society does not welcome in any outsider. Still, why is some like him being welcomed this much? There was no reason for him not to be happy; nevertheless, it was something beyond his understanding, making him rather anxious,

- Silence!

As a result of this reprimand which gave a sensation as if firing

someone up, Eiji's body felt pinned down. While maintaining her stern face expression, she spoke.

- Once we make use of your wisdom, the villagers will be able to endure the winter. It will contribute to them producing more stocks, and safe delivery of children. So what's the matter with you being an outsider! If you have time to utter such unreasonable things, then I'd rather have you and my granddaughter bear children.
- Granddaughter? Children?....Tanya-san is tribal chief's granddaughter?

Eiji took a glance at Tanya who was hugging to him while nodding. I see, no wonder I was appointed as an executive – he thought.

- With that, the trial is over. Everyone, please start preparations for the festival. Eiji, I need to speak with you, so drop to my house later.
- Ok! Tonight we're drinking.
- It looks like fun. Still, I won't forgive if you go wreak havoc.
- -....Congratulations.
- Congrats. Well, I knew that you would be fine with those skills of yours. By the way, I took care of the rest of nails.

As the tribal chief entered the house quickly, the other members run off to do the preparations. Only Tanya and Eiji were left.

- Eiji-san....I'm really glad for you. I believed you could do it.
- It's also thanks to you, Tanya. Once again, I look forward to working with you
- Yes, my husband.

And they shared a kiss, while holding on each other. There was someone one he wanted to protect, and be protected by that person. It seemed like Eiji could withstand any hurdles awaiting him.

This was the second time for Eiji to visit the tribal chief's house.

As always, it was big, and had lots of room ornaments.

Once he sat in the wooden chair, he faced the tribal chief, and drank the water handed to him by the tribal chief. It was in a wooden cup with its inside gouge out. Her facial expression, unlike before, was much gentler.

- I have three things to talk about. First being about Tanya, second being about your job, and the last being the item which you made.
- Yes.
- Just as I said before, Tanya is my granddaughter. Both of her parents passed away a long time ago due to illness. Don't you think it's weird that she didn't try to make you her next husband?
- I thought about it, the reason why she did not while looking after someone else.

After the tribal chief gave out a sigh, she shook her head. She had a rather displeased expression.

- Because our people tend to marry only inside this village, there is a risk of homogeneous lineage; therefore, we wanted to find someone from outside for Tanya. And finally when someone who met the criteria came from the neighboring village, despite numerous insists, that person just died in a war, without even leaving an offspring.
- And then I came.
- That's right. Your origin might be unknown; however, it is clear that you're not affiliated with anyone in this neighborhood. Of course, had Tanya deemed you to be not appropriate, she could've just as well kicked you out. Nevertheless, it seems like she took a liking in you.

Fufufu – Smiled the tribal chief.

Eiji could do nothing but reply with a smile.

- Next will be the village. Be it during your break from forging, or when you're not setting up a fire. Use that moment to get an apprentice, and teach him your art. Anyway, even if it's a little so that this village could prosper, I'd like you to use the utmost of your knowledge.
- Understood. In addition to farming tools, I'll do everything in my power to become a helpful person.

Uff – sighed Eiji tiresomely.

Was I able to draw out the reply which would make the tribal chief at ease? - Eiji wondered. Somehow, he doubted that viewpoint.

However, he was standing in front of someone who seemed to act appropriately for her age, to the extent that even one couldn't feel the usual spirit in that reprimand of her's.

- With that I feel confident, but there's still one more problem.
- You mean the iron, right?
- Aaa, the iron... yes that's it. I still remember seeing it being used as a child.
- Is that true?
- I swear it's true. That black radiance and the powerful sharpness.
 My uncle used it in the hoe.
- Then why did you cease to use it?

I cannot believe it – thought Eiji.

Why did they revert back to bronze, even though they knew of iron's properties?

Around 14th century B.C, the Hittites invented the method of carbonizing, and became able to produce steel. Since then, it marked the beginning of steel era, making bronze a thing of the past.

- I don't know. In the first place, this village couldn't produce using either iron or bronze. Perhaps, the villages belonging to the feudal lords will know something about this. Once the time for tax collection and trade take place, I'll take you with me.
- Please do.

As Eiji's trial ended, a taste of unsolved mystery remained.

Once the fest end, Eiji plans to publicly exchange the marriage oath with Tanya.

No matter what kind of hurdles will be involved, inside his heart, he swore not to give up.

Notes

 Two ideas of what Eiji's hatchet's head might look like, Western(just the head):



Eastern:



• Some damascus axe designs:





Chapter 9.5- The Winnower and Pietro the Apprentice

The people worthy of respect are surprisingly the ones close to you. For Tanya these were: her grandmother who was at the same time the tribal chief, Jane – the manager in charge of this village's girls, and her husband who kept bringing forth new things.

Recently, that husband of hers had been wholeheartedly making something.

Fuu- as Tanya breathes a sigh.

At her feet there was a wild boar piglet rubbing against her with its nose.

That was one of the few animals raised in their own livestock chamber.

Besides it, there was 1 more female boar feeding a piglet with its breast milk.

From this chamber, Tanya's workshop could be seen.

There were plentiful amounts of wheat tied up in bundles, a senbagoki, and a sieve (screen)

Inside the dark room, Eiji was fiddling with a wood-constructed device.

Today marks the third day.

Tanya wasn't particularly worried about the device that was being made

Since the senbagoki was made, her labor drastically bettered.

However, for her own sake, under no circumstances could she neglect her labor.

- Eiji-san.
- Yes. What's the matter?
- Recently, you've been staying a lot in the house; will your job be fine?
- I'm having Philip-san making me firewood, that's why I'm waiting. Since the watermill was made, I can produce the items far quicker.

Also, I was able to acquire a subordinate kid to help me with the whetstone.

Once asked by Tanya if it's fine to cease his work, Eiji smiled, saying that it's fine.

Because the firewood consumption was extraordinary big, it's necessary to take a break once in a while – is what he justified.

The first time Tanya saw the watermill mentioned by Eiji, she was surprised at the sound produced by it.

In addition to the enormous cog-wheel, both of them made a gon gon noise.

Just as Eiji said, it seemed that there were lots of gadgets inside the watermill.

Strings could be seen in the blacksmith workshop, circulating midair. Once these strings were pulled, you could decide whether to stop or activate the watermill.

You could also control the pair of bellows, the electric hammer, and three grinding machines at own your discretion, once there are two water mills operating.

Tanya couldn't understand just from seeing its construction.

Even if it were to be put in practice, or explained in details, she probably wouldn't understand.

Such moments made Tanya think that her husband is a genius.

- What do you intend to make with that, Eiji-san?
- A winnower.
- A winnower?
- After you finish threshing using the senbagoki, aren't there are tiny stones and straw scraps still attaching to the seeds, no matter what you try? How do you deal with them?
- I put them on the screen, and select the wheat seeds only.
- Isn't it troublesome?
- It's time consuming. You have to repeat that numerous times.

Because the screen has a different eye-hole pattern, one would have to shake it many times with their hands, in order to make scraps fall. At the same time, so as to not miss any crop seeds, there was a need to sift them thoroughly on the screen 2-3 times.

But Tanya, who obtained the status of having a husband, could be exempted from doing this, given that she helps with field work.

The reason why she continued to do her rigorous work was because she could work skillfully for the villagers unaware of Tanya's work reduction, which was due to her possessing the only senbagoki in this place, and therefore, increasing the share of wheat.

Previously, it seemed that Tanya let her tongue slip about the senbagoki; nevertheless, other people probably hadn't expected it to be 7-8 times more efficient than normal labor.

Once they gladly accepted, Eiji and Tanya could enjoy a little bit more luxurious meals.

- How is putting them on the screener related to this device?
- Once you rotate it using this handle, the seeds will drop while being blew away by the wind power, separating the seeds which are different in mass. Such is this device's function. It properly uses the rotation part made from iron, which effectively suppresses the loss of power. Furthermore, once it slightly settles, it will easily rotate, and

Tanya could neither understand what Eiji said, nor his fixation with the use of iron.

However, it was clear that what he does makes her labor more enjoyable.

Despite her not understanding, she thought desirably of Eiji, who continued to give an explanation while trying to make it easy with a troubled face.

Once she finished taking care of piglet, she stood next to Eiji. Eiji, who thought it would be easier to show in practice, inserted the wheat grains from the upper part of the winnower.

With his left hand, he operates the board. Then he adjusts the amount of flowing wheat grains, and rotates them using the handle with his right hand.

In front of the handle, there was a thin iron plate, which was fanshaped, connected to it. Its role was to send wind inside. The wheat grains, which were falling in drops, moved a little while falling into a jute bag.

The light grains, on the other hand, were absorbed into the jug bag, which was placed far away from the widower.

Then the chaff itself and the wheat straw, both of them being scraps, were blown away by the wind.

Ahh, it's indeed incredible.

Finally she understood. Tanya could predict just how enjoyable her work would be.

Tanya covered her opening mouth with her hands, as she wondered how much the winnower will help, as well as, how much time will she be able to save for other things.

Yes, as expected, the amount of streamed wheat and the adjustment width of the wind are hard to operate. Tanya-san, it might be difficult to get used to, for the time being. Nevertheless, when you get used to it, your labor will certainly be much more of fun, so can I have you use this?

Indeed, Tanya could remember the troubled face of that amiable and kind husband of hers, who was bowing down in her direction.

----- I wonder how long this will last.

How long will she be able to live? How long she be able to stay by this person's side? – she thought.

Even if it's just a little, Tanya wanted for him to feel this happiness of hers as much as it could last.

The feeling of bliss, the feeling of rejoice, and then, the feeling which made her fall in love, she wanted him to feel the same way, as much as possible.

Tanya smiled. It was a smiling face from deep within her heart.

The brimming delight which she didn't hide at times like this.

Even though she didn't possess any skills, nor knowledge or wisdom, like Eiji, at least she wanted to make an effort, so as to have him spend his time pleasantly.

Preparing delicious meals, making his tired husband feel at ease after work, these were the things she wanted to endeavor.

Then, Tanya wanted a baby which could receive this happiness.

While thinking so, she decided.

There's no way to realize them, just by smiling.

Still, it would be bound to happen, if she follows her heart at her own convenience.

Tanya thanked god for letting her meet, by chance, such a softhearted husband whom she could respect.

Gon, gon – a low continuous sound was heard reverberating.

It was the sound of the watermill rotating the cog-wheel.

The workshop was usually warm thanks to the furnace, but could also be cool if the fire ceased to work.

The watermill, which is normally used for the pair of bellows and power hammer, was now powering the grinding machine.

The big, round-shaped whetstone was revolving.

The one who was using the whetstone carefully to hit the hoe's tip and sharpen the blade was a 12-13 years old boy.

Despite this boy still growing, he had a slim physique.

The boy was called Pietro.

While being free from any obstructive thought, he continued his grinding work.

Because the whetstone was moving by itself, it should be fine to continue with hitting, so as not to deviate along the edge and to adjust the angle of the blade.

The one which was now used to shape the hoe's tip was a naka-to When it was finished, Pietro moved the hoe away and checked its blade.

The blade's edge was thinly sharp and glittering.

Once he ascertained the right thickness, he placed it to the side.

Pietro, who had been in his care for one month, was the right person whom Eiji had searched for.

- Master, I finished it.
- Good work. Did you become more familiar with grasping the angle?
- Yes, it's fine.

- Well, then next, you will work using ara-to one
- Eh! Is it right for me to do the blade edge scraping?
- You can't?
-No, it's just that...
- It's ok not to brood over whether it's hard or not.

For Pietro, Eiji was an adult on whom he could rely on.

Always being in good mood, he trusted Pietro, and would teach him new skills one after another.

Pietro would go to the mine with a pickaxe to gather some ores, or run around to get firewood, but these were only natural tasks for a subordinate.

Learning how to use a whetstone, how to polish and scrap were indispensable skills.

However, he hadn't thought he would be told of them that quickly.

And not just telling the new skills, he was also given new tasks every time.

Pietro was able to feel the trust behind those words, which made it seem like he could give his best under this person's guidance.

- Having Pietro remember things rapidly, I want you to learn as fast as possible, so that you could be in charge of this workshop when I'm away.
- But are you not too hasty…?
- I wonder. If I teach you the skills without any stint, then you should be able to become a maker within 5 years, but…
- Will I be able to reach Master's skills?
-Dozens of years, no, perhaps 15 years. Even for simple tasks, it's about experience, you see.

After 5 years, Pietro would be still only 17 or 18.

Assuming he doesn't incur any serious injury or illness, he could make large quantities of items.

- Furthermore, I'd like focus on other jobs to make different things.
 This village still doesn't have too many convenient tools.
- -Is that so?

Pietro couldn't understand what he feels.

Perhaps, it was due to him not knowing the possibility of creating a more pleasant environment.

No matter its difficulty, as long as it's what's natural to do, he could only accept that without any complaint.

Eiji spoke.

- When we talk about transport, it would usually be walking by feet or riding on a horse, I think. Nevertheless, there's a device called a bicycle. It's slower than horse, however, it can let people move with the same speed as running.
- Does something like that exist?
- Yeah. If I were to imagine... it would probably seem like that. You have seen the wheelbarrow, right? The wheels would be attached in front and back, and you would get on a platform. Like that, you rotate the lever with your leg power, making the cog-wheels bite each other. And the wheels moves, just like how the whetstone works using the watermill's power.
- (Sigh of astonishment)

Pietro could somewhat imagine it. However, for some strange reason he didn't understand why it was still too early to make that. Eiji, who didn't seem that keen on continuing the explanation, began to draw a picture on the wooden block using the charcoal. Perhaps he was thinking about inventing the next item. One could tell how serious his face was.

- What do you plan to make next?
- Uh, this is very important for our household.
- Yes?
- It's called a bra.
- Bra...
- Yeah. Pietro, I'll entrust you with its sharpening once it's made. You have already done lots of sharpening, including scythes, hoes, nata, and kitchen knives, haven't you? I don't mind if you finish your work at your own convenience, but don't forget to turn off the watermill.
- Y-Yes. How about Eiji-san?
- I'll focus from now on completing this bra. First, I've got to take measurement.

While having a stern expression, Eiji left the workshop.

Certainly, he will once again craft something of great magnitude.

Because, whenever he made something, it would surprise and please the villagers.

Fernando was impressed about the plane, and Jane boasted the splendor of the iron pot, inside the village. Whereas, Mike could set the foothold traps to hunt animals.

Every tool was made using iron.

There was no doubt that the bra was a convenient tool made from iron as well.

Pietro silently bowed down toward the inventor whom he revered.[1]

Notes

1. Author: Due to some people's misunderstanding, I'll postscript. The Bra is cotton-made (laugh)

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